

**Cell Structure and Function** ▪ *Guided Reading and Study***Chemical Compounds in Cells** (pp. 25–30)

*This section identifies the basic building blocks of cells. It also explains the importance of water to cells.*

**Use Target Reading Skills**

*As you read, compare and contrast carbohydrates, proteins, and lipids in the table below.*

Type of Compound	Elements	Functions
Carbohydrate	Carbon, hydrogen, oxygen	
Lipid		
Protein		

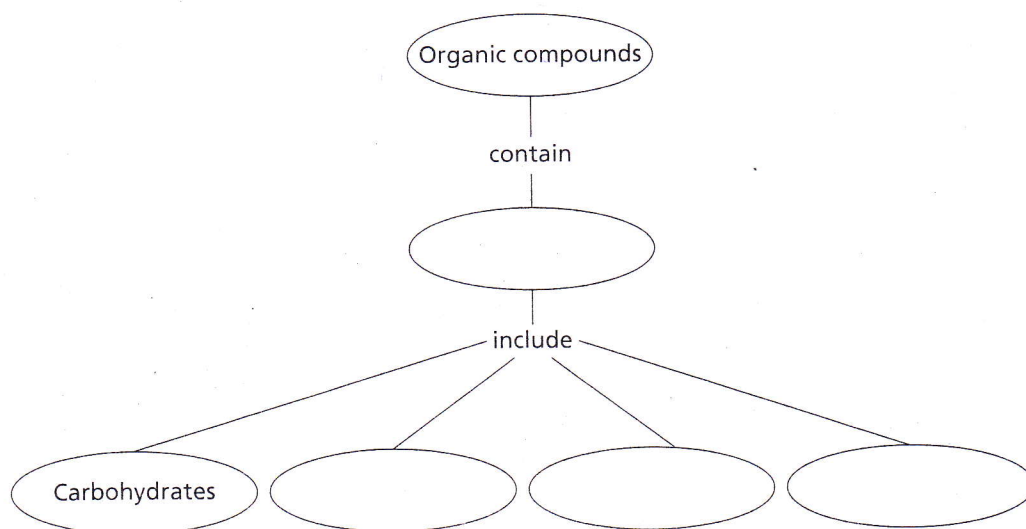
**Elements and Compounds** (pp. 25–26)

1. A(n) \_\_\_\_\_ is any substance that cannot be broken down into simpler substances. Its smallest unit is the \_\_\_\_\_.
2. When two or more elements combine chemically, they form a(n) \_\_\_\_\_. Its smallest unit is usually called a(n) \_\_\_\_\_.

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**Chemical Compounds in Cells** (continued)

3. Complete this concept map on organic compounds.



4. Compounds that do not contain carbon are called \_\_\_\_\_.

**Carbohydrates** (p. 27)

5. A carbohydrate is made of carbon, hydrogen, and \_\_\_\_\_.
6. Starch is a kind of carbohydrate. What foods have starch?

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7. How do cells use carbohydrates?

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**Lipids** (p. 27)

8. What are three examples of lipids?

a. \_\_\_\_\_ b. \_\_\_\_\_

c. \_\_\_\_\_

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9. How are lipids like carbohydrates?

\_\_\_\_\_  
\_\_\_\_\_

10. Cells store \_\_\_\_\_ in lipids to use later.

**Proteins** (p. 28)

11. \_\_\_\_\_ form parts of cell membranes and many of the cell's organelles.

12. What small molecules make up proteins? \_\_\_\_\_

13. What do enzymes do?

\_\_\_\_\_

**Nucleic Acids** (p. 29)

14. Very long organic molecules that contain instructions that cells need to function are called \_\_\_\_\_.

15. Is the following sentence true or false? Cells use the instructions in nucleic acids to carry out all life functions. \_\_\_\_\_

16. List the two kinds of nucleic acids.

a. \_\_\_\_\_ b. \_\_\_\_\_

**Water and Living Things** (p. 30)

17. List four ways that cells use water.

a. \_\_\_\_\_  
\_\_\_\_\_  
b. \_\_\_\_\_  
\_\_\_\_\_  
c. \_\_\_\_\_  
\_\_\_\_\_  
d. \_\_\_\_\_  
\_\_\_\_\_